THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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EDITORIAL NOTES.

The article on "Warbles," by Miss Ormerod, from which we this week publish an extract, treats of a subject of great practical importance. It is one of those many subjects entailing great loss to the farmer which are constantly overlooked. It is especially one which should attract the notice of the veterinarian, but with the exception of Mr. Thompson of Aspatria, none of our profession seem to have given it more than passing notice. Our practitioners do not do themselves justice; they recognise disease simply as a personal matter—one to which their attention is called for treatment in private practice—but they are too apt to overlook the wider importance of maladies, the prevention of which would bring them into public notice and gain for them that public recognition which raises the whole profession, at the same time that it increases their own reputation.

We cannot help recognising the value of Miss Ormerod's work, but it is with a sort of selfish regret that it was overlooked by our members, who have missed an opportunity of increasing their reputation as the friend and guide of the stock-owner.

Does the veterinary profession suffer more from the practical ignorance of some of its members than from the very small number of really scientific men to be found in its ranks? We often hear tales about recently qualified members displaying dreadful ignorance of some practical subject which our clients are able readily to detect. We are told that such ignorance brings contempt upon the whole body, and that our examinations should be so framed as to prevent similar exhibitions. Now we rather doubt whether such cases do the harm they are credited with. They undoubtedly injure the reputation of the member implicated, but we venture to say have little or no effect in prejudicing the public against the profession—they do harm to the individual not to the collective body. Scientific ignorance on the contrary does harm to the whole body, and militates against our being given the position we all aspire to. Whereas a degree in human medicine carries with it a status even for the unworthy, a degree in veterinary medicine gives no status worth having independent of the qualifications of the individual. It even seems to militate against our best men taking the position they are worthy of. One really prominent man does more good to a profession than ten mediocrities are able to do harm. Every new addition to our knowledge, every special discovery of practical use to the owner of animals is appreciated, and public recognition is not confined to the individual but his glory is reflected upon his profession. Hence it is, that we should aim at producing members of the profession capable of holding their own with the leading members of other allied callings. We should afford facilities for men who have obtained the diploma, to pursue their studies and to reach the rank of specialists on some one branch which would be of practical use to the public. Other professions supply these facilities by enabling a man by bursaries or scholarships to devote himself to original research. Our men have no opportunity for this, and the sooner we endeavour to remove the disadvantage the better.

At last Council meeting Professor Walley carried a resolution that consideration should be given to the subject, and it was remitted to a Committee for that purpose. We sincerely hope the Council may see their way to remedy one of our weak points, but the difficulty will be in the cost. Very few of our graduates can afford the time necessary for special scientific work, nor if men were willing and able can the conveniences for it be found outside our teaching institutions. Scholarships which would enable men to devote time to useful work are wanted, and we would suggest that the profession might assist the Council by founding "a prize fund." Subscriptions might be collected and augmented by grants from the College funds In a short time we should be enabled to endow original research to an extent which would soon repay us by increased public recognition and by the acknowledgement of that scientific status which we all desire but which we have as yet no real right to claim.

A very interesting report by the Hendon Medical Officer will be found on another page. Although that official does not positively express his belief that an outbreak of Typhoid-fever was caused by Swine-fever he hints at the possibility, and the Local Board of Health seem inclined to adopt his suggestion Many of our readers are Inspectors under the Contagious Diseases (Animals) Act, and must see large numbers of outbreaks of Swine-fever. It would be interesting to know if any of them have any experience of the health of human beings under these circumstances, and whether enteric symptoms of any kind have ever been noticed to prevail.

ARTICLES AND CASES.

YEW POISONING IN HORSES.

By F. C. Mahon, M.R.C.V.S.

Cases of Yew Poisoning are now and then met with in agricultural districts, and country practices, and the record of two cases, with *post-morem* appearances roughly taken, may prove interesting.

Two mares had been pastured in two adjacent fields, connected by a gateway, which was open on the day death took place, in the month of March.

In the first field adjacent to the farm house were a number of Yew Trees *(Taxus Baccata)* all of which, on examination carefully made at the time, proved to have been attacked by the animals—the young tops in particular. In an enclosure some fifteen feet by twelve, stood a large old solitary tree, uninjured; around and near, likewise enclosed by a wooden railing a few feet high, stood a number of younger, with leaves, etc, in a young state, and more succulent and tempting, two of which had been nibbled at considerably in various places.

The mares were hand fed twice daily on clover-hay and rye-grass, with occasionally a handful of corn, and were, prior to the day of death in the enjoyment of good health. Whether neglected by the attendant, in the way of food, I was unable to gather.

The attendant had in the morning, about 11.30, called and fed them, they ran up to him, to quote his words, "lively" from the bottom of the sloping fields. Both animals were found dead less than two hours afterwards.

No. 1 lay on her left side facing No. 2 which lay in exactly the same position, and both animals were within twenty-five yards of each other.

Both animals presented a tympanitic appearance, but "not more so," said the attendant. "than immediately after death" on the previous afternoon.

I made a *post-mortem* examination at the owner's request, as he naturally, owing to so sudden death, expected malicious poisoning. An incision along the "Linea Alba" revealed blood dark in colour, and of a tarry consistency, with characteristic odour of yew; mucous membrane of anus and vulva discoloured, bluish-red in colour.

No. 2 had a little of the clover hay hanging from the mouth, which could not be taken away owing to the rigidity of the jaws.

On opening the abdomen gas escaped, but in small quantity, the protrusion of the anus and vulva well pronounced, both very much enlarged and hardened. mouth bluish-black, discoloured in ecchymosed patches. Teeth fixed, limbs rigid, and in normal position of animal when naturally quiet, that is legs fully extended. Rigor mortis had not passed off in either animal.

Trefolium and rye-grass near, of which as before stated they had previous to death partaken. Viscera (abdominal) strongly injected, especially on the under surface of the colon, along the markings of the blood-vessels, and on either side. Stomach full of ingesta, and to cuticular portion of the stomach adhered a number of bots, I counted roughly over one hundred. Bluish-red discoloration in patches, and well marked in this (cuticular) portion of organ. No ulceration however, death intervening rather too suddenly for this pathological change. Diffuse redness of the "Villous portion of the stomach" with engorgement of blood-vessels. Duodenum of a diffuse red appearance, especially well-marked near the pyloric orifice of the stomach. Jejunum reddened, but to a lesser extent, thus showing death to have been ushered in suddenly, and ere the ingesta had much time for onward progress.

No. 2.—Bay mare. Aged.

Colon, ecchymosed along the course of the blood-vessels. Spleen, enlarged to three times its normal size. Examination of blood and exudata failed in this case, as in No. 1, to show any Bacilli Anthracis. No discoloration elsewhere, nor on the peritoneal surface of the abdomen.

Small Intestines.—In this case showed very marked external appearance and inflammatory results. Rectum ecchymoses well marked. Rectum and anus both swollen, protruded, and discoloured. Blueish-red patches scattered throughout their lining membranes and everted portions. Ingesta in stomachs of both animals partly digested, characteristic smell of crushed yew tops well marked, twigs in quantities scattered amid the stomachal contents; the odour resembled that of crushed tops to which water had been added, exposed to air, and allowed to remain so for some hours.

Ulceration of bowels in this case just commencing, acute inflammation of the lining membrane, thus proving one of three things, or rather conditions—either primarily, that No. 2 ate more yew tops, etc. than No. 1; secondly, lived longer; or thirdly, that she had eaten of the yew previous to No. 1.

Therapeutical treatment is of little use except in earliest stages. Stimulants, combined with Cathartics and Enemas are especially recommended as antidotes. Ruminotomy in cattle has been suggested. It appears that the poisonous principle is more virulent in the young shoots than in any other part of the tree, but it exists in quantities, greater or less in the leaves, and even the bark when green. The leaves are more dangerous to animals when consumed in a half-dry state. Why cattle, less than horses, should prove susceptible to the the action of yew is problematical.

If yew acts from the blood, poisoning the chief nerve centres of respiration, and involving the circulation as seems reasonable, it finds a less serious obstacle in the horse, whose stomach is small, compared to ruminants, and less likely to contain ingesta, capable of obstructing, or in some way counteracting its speedy redistribution, after chemical action of the gastro-intestinal juices be accomplished.

A chemical analysis was made me by a friend, a well-known analyst, who could not detect any mineral poison, or over dose of any medicinal agent, capable of causing death.

OPENING OF THE NEW SCHOOL OF VETERINARY SCIENCE IN THE BALTIMORE UNIVERSITY, U.S.A.

On Tuesday Evening. October 1st, Dr. Ward, F.R.C.V.S., was introduced in the Theatre by Dr. Pierce B. Wilson, M.D., one of the directors, and installed as President of the Veterinary Faculty of Medicine in an eloquent address.

Professor WARD then gave the introductory lecture, which was listened to with great attention by an audience made up of the Faculty of Medicine and Students, and many prominent citizens interested in the welfare of the lower animals, amongst them was noticed the Hon. R. Stockett Mathews, of the Baltimore Bar; Capt. D. J. Hill, the well-known breeder of imported thoroughbred horses; Mr. Ed. Kearney, of the Monumental Stables; W. T. Biedler. Esq., Mr. J. D. Bye, and several others.

Professor WARD remarked that history told us that veterinary science had engaged the attention of men of learning, for the diseases of animals were referred to by Moses, and the sages of Greece and Rome.

In more modern times the barber surgeons grasped the healing art. but as soon as the doctors were developed they abandoned all claim to medical or surgical knowledge, although in this city they retain the bleeding staff, fillet and basin, may be a memento, yet it is doubtful if any one understands the meaning of them.

Thus it has been in Veterinary Medicine, for wherever the educated veterinary has located all over the civilized world, he has eventually risen over the empiric, the horse doctor and cow leech, and they have become things of the past.

Human medicine and animal medicine are so closely allied that a line of demarcation is difficult to trace, both are so rich in pathological research of value to each other, that the closer the two professions are to each other the better it must prove for mutual advantages.

In Europe, Germany, and France especially the intimacy has been of long standing, wherein comparative pathology has developed, but although chairs of Comparative Anatomy have existed for years in our Universities, no chair of Comparative Pathology and Medicine has been established. echo answers, Why? In 1761 France was the leader in veterinary science, followed by Germany, Austria, and other European countries. England excepted, for the establishment of a school there did not take place till 1791, thirty years being necessary to convince that country of its value.

Veterinary Medicine is quite young in this country, for the first school was established in Montreal some twenty or twenty-five years ago, followed by others in New York, Harvard and Pennsylvania Universities, and Chicago, making five schools. The value of these schools is apparent from the service rendered the Bureau of Animal Industry in the suppression of contagious diseases, for without the gentlemen educated in these schools to act as Inspectors, the Bureau would have been in a sad fix.

The course of study needed to make a man an educated veterinarian was clearly shown, and Professor Ward said—"Every year is marked by progress—and you must be equal to the demand or success will not be yours."

He told the students that besides having to do battle against disease, they will have to do battle against unsophisticated ignorance, prejudice, empiricism, and sophistry, but they must remember that the shield of Science would protect them. That although no great honors belonged to the profession as in France, whereat the renowned Veterinarian Henri de Bouley was elected President of the Academy of Sciences. The satisfaction of having passed a life of usefulness to your fellow men will when your time comes to shake off this mortal coil, yield that peace of mind which is the factor of true happiness next to Godliness.

The Hon. R. STOCKETT, in moving a vote of thanks, remarked on the importance of the profession to the welfare of man and animals. In the most eloquent and impressive manner he pleaded for the horse as man's faithful servant, and man's firm companion and true friend the dog. He made serio-humorous references to his experience with horse doctors in his practice at the bar during thirty years, and compared it with the evidence of to-day, which he said might still improve.

He advised the intending students to yield themselve up to study and come out men of science as well as practitioners. His earnestness made an impression long to be remembered and was loudly cheered on resuming his seat.

On Thursday the 3rd, the general course was commenced by a staff of professors.

EXTRACTS.

OLD PLEURO-PNEUMONIA CYSTS.

LINGERING CENTRES OF CONTAGION.

By PRINCIPAL WALLEY.

As the dissemination of pleuro-pneumonia has aroused so much interest in the minds of stock owners of late, I purpose giving a brief sketch of the process by which the damaged portions of the lung become encysted and ultimately become centres of infection.

Contagious Pleuro-Pneumonia.

In contagious pleuro-pneumonia (distinguished hereafter for convenience as pleuro-pneumonia), the inflammatory lesions are of greater intensity than they are in ordinary forms of lung inflammation. The lining membrane of the bronchial tubes and air cells becomes enormously thickened so much so as to prevent air finding its way into the air-cells, frequently, too, lymph from the blood is thrown out into the tubes, coagulates, and forms a plug or cast, and assists in the obliterating process. The tubes are further diminished in calibre by the pressure of the enlarged lung tissue around them; and, [ul-

timately, by the formation of new tissue on their outer surface. The lung tissue (*parenchyma*) becomes charged with lymph, which coagulates and renders it solid, and the same thing takes place in the tissue (interlobular) between the lobules. The blood-vessels by which the blood is returned from the lungs to the heart become blocked, and as a consequence all the small vessels become surcharged, and, giving way to the pressure, the lung tissue becomes swamped with blood and with the water (serum) of the blood. The coagulation of the lymph in the interlobular tissue produces well-marked *white lines*, and the consolidation of the lobules produces the red areas between the white lines, the whole giving to the lung or section the *marbled* or *mottled* appearance so characteristic of pleuro-pneumonia.

Dead Lung.

If the inflammation is extreme the involved part of lung is destroyed or killed owing to the destruction of the *nutrient* vessels; in other words, it mortifies, but owing to the fact that no air gains admittance, it neither becomes black in colour nor decomposes, as in ordinary inflammation, and as it does not decompose so there is no fœtor or stink. The dead lung contracts a brick red colour (hence, years ago, the writer designated brick red hepatization) and becomes very firm and comparatively dry.

Injury by Pleuro-Pneumonia never repaired.

In severe cases of pleuro-pneumonia, softening of the products of inflammation and the discharge thereof through the bronchial tubes, with subsequent restoration of the function of the damaged lung, never takes place; hence *a lung or part of a lung destroyed by pleuro-pneumonia is never restored to its original condition; i.e., the lesion is never cured.* In pleuro-pneumonia the involved parts are firmer, heavier, and more solid than in ordinary inflammation, and on pressure a large quantity of water flows from the cut surface; *the lesion tends to become circumscribed or to terminate abruptly*, and inasmuch as the pleuro is nearly always involved, the lung becomes, either temporarily or permanently, adherent to the ribs.

Fate of the Injured Lung.

The fate which awaits the injured lung will depend, in the first place, upon the condition of the nutrient blood-vessels. If they preserve their integrity the connective tissue retains its vitality and increases in quantity, but the damaged lung tissue is nearly or entirely absorbed, and becomes replaced by solid, new (*interstitial*) tissue, and *the function of the part as a breathing apparatus is permanently abolished.* If the nutrient blood-vessels are destroyed a very different fate awaits the damaged lung. It becomes surrounded by a thick band of new tissue (the segregating band) formed from the interlobular tissue of the living lung adjacent to it, and in this way it is effectually cut off from the living parts; it becomes *encysted*, or *encapsuled*, and bears the same relation to the capsule as the kernel of a nut to its shell; *it is absolutely dead*, and though imprisoned in a living grave no life (no nourishment) penetrates its interior, for the simple reason that its blood-vessels are severed from those of the surrounding parts.

The cyst wall forms an *impenetrable barrier* between the living and the dead lung, and the fate of the latter depends, ultimately, on the condition of the cyst wall. If it becomes hard or callous, the dead (*necrosed*) lung exerts no action whatever upon it, and the latter may remain for months, or it may be years, as a dry inert mass (*sequestrum*), resembling very much a mummy in its case. If the material of which the cyst wall is composed retains a vitally active state, the dead lung, like any other foreign body, acts as an irritant and induces an inflammation more or less active; fluids and white cells are thrown out from the blood-vessels, and the bond of connection between the living and the dead is severed. Simultaneously with this active severance granulations (proud flesh) form on the inner surface of the cyst wall and press upon and penetrate the dead mass producing softening and liquefaction of every part with which they come in contact. Ultimately the granulations pass through the dead mass—interpenetrate it,—and, coalescing with similar granulations from the opposite side of the cyst, form continuous bands, on every side of which the breaking-up process in the dead matter goes on

The Cyst.

If the cyst is cut into at this stage it will be found that the outer surface of the dead mass is irregular, or pitted (the pit marks corresponding to the eminences formed by the granulations), while the spaces between the cyst and the dead lung are filled with a semi-fluid material (the softened matter) of a yellowish colour and something of the consistence of beaten up yolk of egg.

Communicating Infection.

Now, if the cyst-wall holds its own, probably little harm results from this softened lung tissue, but, unfortunately, in the inflammatory process a communication is frequently—indeed usually—established between the cavity of the cyst and a bronchial tube, or several such communications may be formed, and the softened matter comes in contact with the outer air, which it contaminates and renders *infective, i.e.*, capable of conveying the infection to healthy animals cohabiting with, and breathing the same atmosphere, as the diseased.

The length of time that may elapse betwen the death of pleuro-pneumonia lung and the period at which the communication of the outer air is established, will vary very materially, and, as before indicated, will depend upon the activity of the inflammatory process in the cyst-wall.

Duration of the Encysted Period.

In some cases the period of inter-communication will be as short as three or four months, in others, from six to nine or twelve months; and only recently an outbreak of pleuro-pneumonia has come under my notice, in which the lung must have been encysted for a period of twelve months; further, in

conversation the other day, Professor Duguid related to me an instance in which the period was proved, beyond the shadow of a doubt, to have been fifteen months.

Preservation of the Infective Properties.

The important question arising out of the foregoing is, as to *the method by which the dead lung retains its infective properties.* Reference has already been made to the fact that a mortified pleuro-pneumonia lung never decomposes, and that this is due to the exclusion of all putrefactive organisms by the blocking of the bronchial tubes at an early stage of the disease; but, and more remarkable than this, *neither the dead lung nor the softened matter by which it is surrounded in the interior of the cyst ever contracts a putrefactive odour.* This phenomenon can only be accounted for on the supposition that the organisms or germs of pleuro-pneumonia secrete a material possessing remarkable preservative properties, and that the ordinary putrefactive organisms of the air are incapable of exerting a deleterious influence on the pleuro-pneumonia organisms, or of inducing putrefaction in the disinfected lung elements.

In support of this supposition or theory we have the fact that pleuro-pneumonia lymph may be preserved by a very simple process in a state of activity for years. The writer has inoculated, very successfully, with preserved lymph after the lapse of two years, and he is firmly convinced that *the activity of the lymph may be conserved for an indefinite period.*

An Infective Focus.

The question as to whether a pleuro-pneumonia lung which has not died *en masse* but in which death only of the lobules (parenchyma) has taken place can become an infective focus, can be answered in the affirmative, and what is of greater importance it becomes infective at a much earlier stage than does an encysted lung. The interstitial or connective tissue, retaining its vitality in a mild attack, produces more rapid disintegration of the damaged lobules, and the softened matter gains access to the bronchial tubes at a much earlier period than would be the case if encystment had been established. This theory has been more than confirmed by circumstances which have come under the writer's immediate observation during the recent introduction of the disease into the byres of the City of Edinburgh by so called recovered cases in Cumberland cows.

ON WARBLE FLY, (HYPODERMA BOVIS) AND "LICKED BEEF."

By Miss Ormerod.

The Ox Warble Fly, or Bot Fly, is a two-winged fly, upwards of half-an-inch in length, so banded and marked with differently-coloured hair as to be not unlike a Humble Bee. The face is yellowish; the body between the wings yellowish before and black behind: and the abdomen whitish at the base, black in the middle, and orange at the tip. The head is large; the wings brown; and the legs black or pitchy, with lighter feet.

Maggots in succeeding stages of development.

Warble Fly.

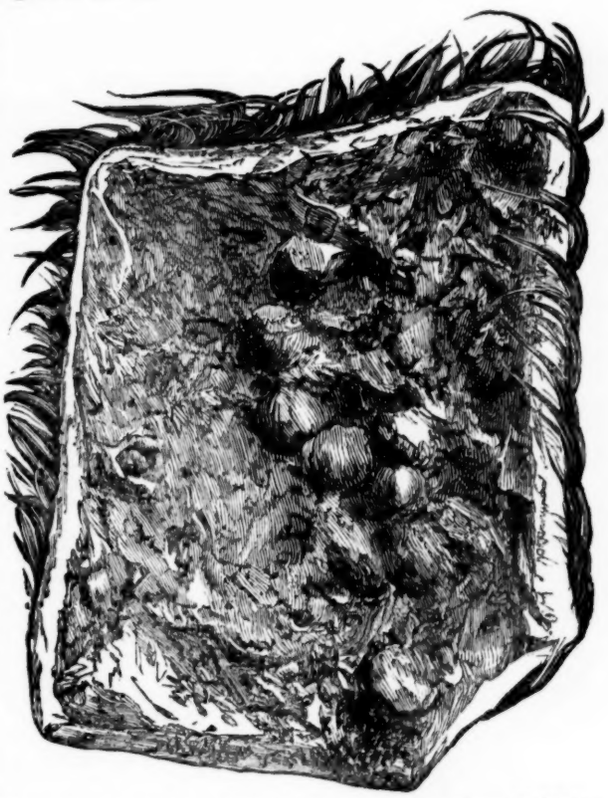
Maggot full grown

Chrysalis.

The female is furnished with a long egg-laying tube; but whether she inserts her eggs into the hide or lays them on it has not been made out with certainty.

Egg-laying takes places *during the summer;* it may begin in the month of May, but the time varies with the weather, and with the cattle being on low land or hill pastures, and other circumstances. The egg is oval and white, with a small brownish lump at one end.

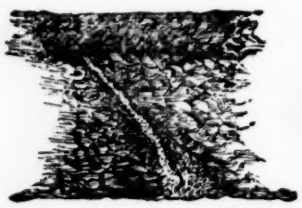
When full-grown the Warble-maggot is the shape figured above.



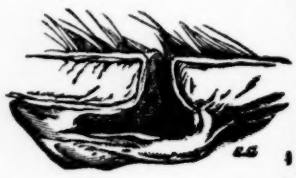
Piece of under side of warbled hide; warbles about half size.
From a Photo by Messrs. Byrne, Richmond, Surrey.

The mischief may first be found on the flesh side of the hide early in the winter. Specimens received from Messrs. Hatton, Hereford, on November 13th, showed the first appearance as small swellings bluish in colour, as if half a large shot was under

the skin, and much inflamed round. The maggots were very minute and blood-colour, and lying free (not in a cell) with a fine channel down through the hide to where they lay.



Section of channel, magnified



Warble-cell, full size, after soaking in water.

The open Warble was first found towards the end of January, and by the end of February open Warbles were noticeable in many places, and the maggot was now white (not being feeding in bloody matter), worm-like, and with strong mouth-forks; in its next stage it was club-shaped, and had a power of inflating itself by drawing in fluid until it was almost as hard and transparent as ice, and, lying small end uppermost, thus kept pressing the opening through the hide larger. In its next stage it gained its well-known shape, with a thicker and more prickly skin, the Warble-cell at the same time gaining its membranous coating.

The maggot can move up and down, but commonly has its brownish-tipped tail at the opening, and it draws in air through breathing-pores in these brown-black tips or spiracles. The mouth-end is down below, feeding in the ulcerated matter caused by irritation from perpetual suction of the mouth parts. The maggot cannot protect itself from the effect of applications, therefore anything put on the opening where the breathing tips show will choke the breathing apparatus, or run down into the hole and poison the maggot. The earlier this is done in the season the better it will be for the animal, and the less difficulty there will be in the Warble-holes healing.

With regard to methods of remedy, there does not appear to be any difficulty in getting rid of the Warble-maggot, when the Warble has "ripened"—that is, opened so far that the black end of the tail is visible. *Then* it may be destroyed cheaply and quickly. From special observation, taken during the last three years, it has been found that where the Warble-maggots have been destroyed before they drop from the cattle, there is little if any summer attack of Warble-flies. Consequently the cattle can rest in peace, and, as there is very little egg-laying on them, there are scarcely any Warbles in the following spring.

Squeezing out the maggots is a sure method of getting rid of them, but they may be destroyed easily and without risk by dressing the Warble with a little of McDougall's smear or dip, or by a little cart grease and sulphur, applied well on the opening of the Warble. Mercurical ointment answers, if carefully used—that is, in very small quantity, and only applied *once* as a *small* touch on the Warble; but where there is any risk of careless application it should not be used. *Any* thick greasy matter that will choke the breathing-pores of the maggot, or poison it by running down into the cell in which it lies and feeds, will answer well; and lard or rancid butter mixed with a little sulphur has also been found to answer. Tar answers if carefully placed, so as to be absolutely on the hole into the Warble. Bought cattle are often badly infested, and need attention.

To prevent fly attack in summer, train-oil rubbed along the spine, and a little on the loins and ribs, has been found useful; so has the following mixture: 4-oz. flowers of sulphur, 1 gill spirits of tar, 1 quart train-oil; to be mixed well together, and applied once a week along each side of the spine of the animal. With both the above applications it has been observed that the cattle so dressed were allowed to graze in peace.

A mixture of spirit of tar, linseed oil, sulphur, and carbolic acid, has also been found useful; and anything of a tarry nature is useful, as sheep-salve or bad butter and tar mixed with sulphur, or Stockholm or green tar, rubbed on the top of the cows' backs between the top of the shoulder blade and loins.

There are many other points that bear on prevention, of which one is—noting that Warble Flies are *most active in heat and sunshine*, and appear *not to pursue cattle over water;* consequently allowing the cattle the power of sheltering themselves, and access to shallow pools, is desirable. Likewise with regard to pastures, or standing-ground of infested cattle, it is a matter of course that where the maggots *have fallen from their backs the Flies will shortly appear to start new attacks.*

Warble attack is one of the few in which each owner benefits surely by his own work.

My attention has been called to the condition of the surface of the carcase, often to be found beneath badly warbled hide, and commonly known (from the belief that it is caused by the cattle licking themselves) as "licked beef." This result of inflammation from warble presence, known as "licked beef" and "butchers' jelly," and the loss thereon in various ways, is not as well known as it should be to farmers and cattle owners.

The effect of warbles on the carcase is more serious than can possibly be imagined by the outside appearance of the beast. . . . . The carcase of beef assumes a nasty yellow colour, and also a soft flabby appearance on the outside rind of the beast (where the warble has been in operation), so much so that the carcase has in some cases to be pared down to the flesh to make the appearance at all presentable for the market, causing thereby a grievous amount of loss to the butcher.

On applying to Mr. Hy. Thompson, M.R.C.V.S., of Aspatria, Cumberland, who has long devoted much attention to warble attack, for an exact description of the damage, he replied:—"What causes the damaged meat or beef is the chronic inflammation set up by the warbles in the skin, which extends to the connective tissues, thence to the flesh, producing the straw-coloured jelly-like appearance of a newly slaughtered carcase of beef, which in twelve or twenty-four hours, when exposed to the air, turns a dirty greenish yellow colour, and thus spoils the

beef, having a frothy discharge oozing from the surface, with a soapy-like look." . . . .

Going on to the result of this to the hide—from the returns of amount of warbled hides received in given periods, and losses thereon, which I was favoured with from some of our leading British Hide Firms and Societies (and which I have given in detail, with sender's name, in my Twelfth Annual Report), I add notes of items of loss at three localities.

In a period of twelve months, 102,877 hides passed through the market; of these, 60,000 were warbled. Loss estimated at £15,000.—J. Mc G.

In five months, 61,103 hides passed, of which 14,830 were warbled. Loss £2,873—W. M. & Son.

In four months. 12,133 hides passed; about one third of this amount estimated as warbled, at a total loss of £1,041.—W. W.

Every one of those warbled hides is a sign of so much out of the farmer's pocket for the food he spent in feeding grubs in his cattle's backs, which should have gone to form meat and milk, besides the direct injury to health and fattening powers so quietly borne that its existence is often not recognised; and (even in cases where the attack is completed by death) it may happen that it is not until the riddled hide is lifted from the jellied back that the reason of the trouble is made known, which a quarter of an hour's care, and outlay of a few pence earlier in the year, would have quite prevented.

The aggregate amount of this loss is something enormous.

Extracted from two leaflets published by Eleanor A. Ormerod, Consulting Entomologist to the Royal Agricultural Society, to whom we are indebted for the illustrations.

WHY SHOULD MEDICAL STUDENTS STUDY PHYSIOLOGY?

Delivered before the Medical Society of University College.

By Professor Michael Foster.

To this there is an answer which I am sure you will all be ready to give me—We study physiology because we are examined in it. I take it that the object of a medical examination—is simply to clear the way for the choice of the public. It would be possible for the public to have free choice in its selection of a doctor; it might be open to any patient to chose any man with a view to curing him, but in that case it might often happen that the patient did not live to see the result, and it has been approved by the world at large that a certain preliminary selection of men shall be made; and although it cannot be said that these are sure to cure or relieve, at all events, there is a fair presumption that they will be able to do so. Now, in the selection of these men, the most direct and experimental method that would naturally suggest itself—certainly the most direct means of ascertaining the ability of an aspirant to cure or relieve—would be to put into his charge a certain number of patients, sufficiently large to obviate any errors of chance, and to watch the results; but that, I think, would be a plan very costly and not unattended with danger. Hence society has come to require that a sort of sham tournament should be held, that the would-be medical man should be examined as to his ideas concerning the proper treatment of cases submitted to him, and that he should be required to state on paper his notions concerning the nature of disease. Now, I take it that this examination is the real examination for the medical man, and the one on which in all cases the greatest stress should be laid. It is not altogether a satisfactory examination, but under the circumstances it is as good an examination as can be held. Now, it is obvious that no one is fit to be let loose upon the public to cure their maladies who is ignorant of certain fundamental notions concerning the nature of disease. And these fundamental notions concerning the nature of disease cannot be taken in until certain notions concerning the structure and working of the human body in health have been acquired; hence it has come about that while the final examination is a preliminary selection of men who are probably fit to treat disease, there has been established another anterior preliminary examination in what we speak of as anatomy and physiology. Again, since an adequate knowledge of the structure and working of the animal body is impossible without some previous acquaintance with elementary physical laws, it has come about that there is another still anterior examination in certain elementary principles of chemistry and physics. Now I take it that that is all that ought to be included in a medical examination. A candidate is examined in physics and chemistry, not that he may be a physicist or a chemist, but that he may know enough of these things to enable him to understand the doctrines and teachings of physiology and anatomy, and he is examined in physiology and anatomy, not that he may become a physiologist or an anatomist, but that he may have that knowledge of the structure and working of the human frame which will prepare him for the due and rapid appreciation of the changes which take place in that frame in circumstances of disease, and he ought to know the nature of these changes if he is not to be a rule-of-thumb doctor, but a scientific physician. I cannot conceive that the public has a right to demand anything more. There may be other things which are desirable in a doctor, but they are things which in my opinion are unnecessary for the protection of the public, and it is the protection of the public which is the basis of medical examinations. It may be very desirable indeed for the medical man to be a scholar, but the public has no right to demand that he should be one. It is far more needful that he should be a gentleman than a scholar, but you cannot put that into an examination.

The physiology the medical student requires is an acquaintance with its fundamental and elementary rules, but it must be a *real* acquaintance with them. He must know, for instance, thoroughly the laws which govern the movement of the blood, from the small arteries through the capillaries into the veins. And to know physiology really and truly he must be able to judge of the way in which its conclusions have been reached; he must understand its methods,

and he must know the instruments, the results obtained by which are the foundation of a large number of the theoretical views.

A medical examination, as I have said, is only a preliminary selection. It only says that this man is, on the whole, fit to take charge of the sick; your ultimate success in life will be the result of a struggle for existence, and your income will depend not merely upon your having satisfied the examiner, but upon the amount of skill which you will display in your life afterwards. Have you an amount of physiology beyond that minimum required by the examining boards to help you in this struggle? For if it will not help you, I, as a physiologist, have no right to ask you to take the trouble to learn it. But I am sure that it is your interest to learn a fuller physiology. The great use of physiology to a medical man is to supply him with ideas which will help him in pathological and clinical investigation. Let him in practice use his physiology as a working hypothesis, and let him combine with this pathological and clinical observation, and out of it will come a true theory which will go far to cure the disease. Think for a moment of that great discovery of antiseptic surgery. Lister started as a physiologist, and the commencement of the antiseptic theory was a physiological idea worked out on pathological, clinical, and experimental lines. Take, again, the surgery of the brain; physiology has gone hand-in-hand with clinical surgery and post-mortem observation, and brilliant results have been attained. But though you may say you have neither time, opportunity, nor ability to make these medical inquiries, yet you can and must be critics and judges. I am astonished and gratified by the amount of physiology which I find has been introduced into practice, the amount of physiological knowledge now found common to the medical profession. But not all the physiology so found is good; much of it, indeed, is bad. Let the student, therefore, so train himself that he may be able to detect the bad—those physiological wolves in pathological sheepskins, which make their way into the medical fold and do so much damage. The greatest use of an adequate physiological training is to enable a man to detect in after-life with tolerable readiness those theories which are worthy, and to separate them from those which are worthless.

HUMAN TYPHOID AND PIG DISEASE.

Dr. Cameron submitted the following report to the Hendon Local Board, on Monday, Oct. 14th:—Gentlemen,—I have to report to you the particulars of an outbreak of typhoid fever at the Gooseberry Gardens Farm, Hendon, which has subsequently spread in the Hendon ward through the medium of the milk from the farm. On visiting the farm on September 11th I found that five cases in all had occurred. I was also informed during my visit, on that day, *that upwards of* 80 *pigs* had suffered from swine fever for about a month or six weeks before August 8th, on which day the last of them was killed and buried in a field on the farm. The farm at which this outbreak of fever arose is a small one of about 20 acres, situate close to the Gooseberry-gardens-road. It is some distance from any other house, the two nearest being 780 and 650 feet distant respectively. The farmhouse is a cottage consisting of a small kitchen, two bedrooms and a dairy, all adjoining and opening into each other on the ground floor. *The dairy could be entered from the bedroom by a door*, but it had also a separate entrance from outside. *The cubic space* of the rooms is 2,373 feet, and was occupied by *seven* persons. This cottage stands on the highest point of the farm, the ground sloping from north and west from this position. Towards the north a field of about two acres slopes towards a small watercourse. In this field nearly 100 pigs were kept, their styes being situated close to the watercourse about 240 feet away from the cottage. but the pigs being allowed to roam all over the field could approach within a few feet of the cottage door. About 105 feet from the cottage is a stable, and immediately adjoining it is a cowshed containing 13 cows. On September 12 and 13 I carefully examined every cow along with the cowman, and found them all in good health. They were also examined by two farmers of great experience, who pronounced them to be quite well.

Sanitary arrangements of cottage.—On enquiry into the sanitary arrangements of the cottage it was found to be totally devoid of drainage. *There was no drain or cesspool, no sink, water closet or privy.* The slop water was thrown over to a field of mangolds opposite the cottage door, and the excreta was buried in the same field.

Water Supply.—Previous to August 1st the water used on the farm and for domestic purposes was derived from an old well on the farm; after that date it was obtained from the West Middlesex Company's main, and the use of the well water entirely discontinued. The cowman is most positive in asserting that not a drop of it was used after that date. The well is situated 39 feet from the cowshed. The well is 18½ feet deep, containing 6½ feet of water. On a lower level than the mouth of the well, but higher than the bottom of it, there was a heap of cow dung about 24 feet distant. The ground slopes quickly from this point towards the north, so that any liquid from the dung heap would go that way. *On some dug up ground near the well, about 12 feet from it and on slightly higher level, I found deposits of excrements made by Mr. Govier and William Govier at the time when they were sickening with the fever.* It is just possible that some of this matter *may have been washed into the well during heavy rain.*

The Dairy and Distribution of Milk.—As already said, the dairy was a room adjoining the bedrooms in which the sufferers slept. A door opens from the bedroom into it, but whether it was ever used I have been unable to learn. There is also a separate entrance from the outside. After every milking the milk was taken to this dairy to be measured by Mr. Govier before being sent out to customers, and as a rule the whole was at once sent out, but any left over was stored in the dairy. (There is some

evidence to shew that all milk was not sent out, and that sometimes milk stored in the dairy from a previous milking was mixed with new milk). On September 11th I warned Miss Govier of the danger there was in distributing the milk in the circumstances in which they were then placed, and they must adopt every precaution to prevent the contamination of the milk. I also told her that as no case of illness had occurred amongst the consumers of the milk I could not stop the sale of it. When I visited the farm again next day, September the 12th, she told me that her father had decided to stop the sale at once.

Cause of Outbreak.—In considering more particularly the cause and course of this outbreak, I may remark that it is universally admitted that typhoid fever does not arise *de novo*. I may also say that no case of typhoid fever has ever appeared on or near this farm for many years. On August 5th Edward Govier, a schoolboy aged nine years, took ill of typhoid fever. Being holiday time he was at home running about the fields, and was constantly with his father amongst the pigs, which were ill, watching his proceedings and assisting to bury the dead ones. He had not gone anywhere from home during that period except that he occasionally visited some boys who lived in a gipsy van near the Midland Gas Works. There had not been any illness there during the whole summer, and I could discover no evidence whatever to shew that this boy could have got the infection there. One day he fell into the water there and got cold, his illness commencing a few days afterwards, but this cold could not have developed into typhoid fever, because the period of incubation was too short, and there is no evidence to shew that he could have got the specific poison then, there being no case in or near that locality. The next one attacked was Samuel Govier, who worked on his father's farm until about a fortnight before his illness commenced on August 26th. (He took to bed on August 26th; had ailed for a week or 10 days before that date.) During that fortnight he drove a milkcart to town for a neigbouring farmer, but he slept at home in the same bed with the boy Edward. He was removed to hospital on August 31st. William Govier, aged 20, who worked always on the farm, was next taken ill on September 4th. He had never been from home, and when his brother Samuel was removed to the hospital on August 31st he slept in the same bed with his brother Edward, the first sufferer. William was sent to hospital on September 13th and died on the 25th. Mrs. Govier, who also worked on the farm, nursed the patients and distributed the milk, took ill on September 9th. On October 3rd she had so far recovered as to be removed to hospital. Robert Govier, the farmer, who was also always on the farm and milked the cows, took to bed on September 4th, when he could no longer work, and died on September 29th. Nellie Govier, daughter, aged 19, nursed the patients, with some assistance from the district nurse, until she was taken ill on September 17th. She was sent to hospital on the 19th, making the total number of cases at the farm six out of seven inmates of the cottage. All of them had been constantly working on the farm. They had not been from home except on their daily rounds with the milk, only the boy Edward, as already described. All of them were frequently amongst the diseased pigs, and had "*consumed some pork of an apparently healthy animal during the prevalence of the swine fever.*" In seeking for a cause for this outbreak I think I may exclude as the origin of it the *possibility of infection from outside the farm itself*. So far as the Goviers themselves were concerned it could not have resulted from infected sewer gas from drains, because no drains existed on the premises. Although the water in the old well was of bad quality there is no evidence that it could possibly have become infected by the specific poison of typhoid fever during the month of July, when the little boy Edward must have received the infection, or during August when the other members of the family were sickening, and the fact remains as positively asserted by the cowman that no water was used at the farm from the well after August 1st, four days "*before*" the first patient was taken ill, but was derived from a standpipe on the West Middlesex mains, erected specially for the use of this farm. The cows were in perfect health. They were removed from the farm on September 14th, and up to this date, October 4. I have not heard of any illness amongst them.—Excluding all the probable causes the fact then remains that swine fever existed on the farm for some weeks past before the boy took ill. This disease is described as swine fever, swine plague, pneumo-enteritis, or so-called hog typhoid. Some authorities assert that it is identical with human typhoid, while others deny that it is so. At present I do not wish to express any decided opinion on the matter because it is still a subject of study for me. I only now state that it existed at the farm before this outbreak; that all the members of the family were amongst the pigs, and all partook of apparently healthy pork during that time

Spread by the Milk to Consumers.—As already stated the milk was stopped on September 12th. Up to that date no case of fever had appeared amongst the consumers of the milk.—On September 28th, 29th, 30th, and October 1st, 13 cases of typhoid fever were reported to me, all of the sufferers having consumed the milk from this farm.—In considering the manner in which the milk from this farm probably became infected so as to communicate the disease to the consumers of it, at first I was inclined to believe that possibly the water in the old well had become contaminated by the excrement of Mr. Govier and W. Govier being washed into it by rain, and as so many of the first cases reported took ill on September 17 to 24, it seemed possible that perhaps on some particular occasion this water had been used for dairy purposes and have so contaminated the milk. The cowman, however, strenuously denied that any of this water had been used. On inquiring more minutely, however, into the matter, it is evident from the dates of attack of the cases reported, that if the water was used at all it must have been used on more than one occasion. Mr. Govier and W. Govier were milking the cows until

September 6th while they were suffering from fever, and that Mrs. Govier, while nursing her children, always measured the milk and personally delivered it to her customers. Some of the milk was also stored in the dairy adjoining the infected rooms in which the patients slept, and being an article extremely apt to absorb infective poison most probably received infection there. My observations and inquiries are not yet completed, and it may be necessary to obviate or alter some of the statements made in this report when my researches in the matter are more complete. At the present time the particulars given are as strictly accurate as I can make them.

JAMES CAMERON, M.D.

[The italics between inverted commas are Dr. Cameron's, the others are ours.—ED.]

In the discussion which followed this report it is tolerably clear that the members of the Board were impressed by the fact that swine fever had existed on the farm and that the pigs were allowed to "roam within a few feet of the cottage door" The medical officer distinctly suggests a connection between the pig disease and the outbreak of typhoid but judiciously "hedges" by a sentence saying he does not at present "wish to express any decided opinion" because he is still studying the matter.

One member of the Board said "the Medical Officer first became aware of the existence of the pig disease on August 1st, but did not take any action because the County Veterinary Inspector had the matter in hand."

Another member remarked that "If the typhoid arose from the pigs, that was a matter for the County Council, because they were responsible for that. Certainly the sanitary inspector was not to blame. If anybody was to blame, it was the officer of the County Council for not discovering the outbreak of swine fever before, and taking greater precautions."

The discussion finished up by a member referring to "a new veterinary book" which stated that the disease (swine-fever?) "might be transferred by a man dealing with pigs placing his hand to his mouth," and sagely observing "nothing could be easier, if these were facts, than for this boy to have taken the disease from the pigs in the first instance."

Hendon does not seem to be a very desirable residential neighbourhood for anyone who uses the milk collected there. It is not long since this district produced the scarlet-fever scare and traced the disease to an eruptive disease of cows. Now the pigs give rise to typhoid, and perchance, with the assistance of Dr. Cameron, some further pathological conditions in man may be logically traced to the horses and other animals of the locality. So far the asses seem to be healthy and active.

PLEURO-PNEUMONIA IN FRANCE.

From the French Ministry of Agriculture we have just received an elaborate Report on the diseases of animals in France and their treatment, written by M. Tisserand, Director of Agriculture. The Report is of great importance, because it is the first comprehensive one which the Cattle Diseases Committee of the Ministry have found themselves in a position to prepare.

Unfortunately, the system of divided authority in dealing with cattle disease prevails in France as in this country, and if the results are less disastrous there than here, it is because there is much less movement of animals from one part of the country to another. Nothing could show this fact more clearly than a map delineating the extension of pleuro-pneumonia in France, and showing the whole central portion of the country free from the disease. M. Tisserand is surprisingly hopeful as to the ultimate, and not far distant, extinction of pleuro-pneumonia, although it has not ceased to prevail in parts of France since the end of the last century, and existed in thirty-one departments in 1887. In only three departments, however, were there over a hundred cases—those of Meurthe-et-Moselle, with 118; Nord, with 337; and Seine, with 455. In these three departments 910 animals died or were killed on account of pleuro-pneumonia in 1887, while for the rest of France the number was only 693. Since the local authorities have been induced to carry out the law of 1881 with some approach to stringency, considerable improvement has taken place, the number of cattle slaughtered for which compensation was paid having been reduced from 3571 in 1882 to 1454 in 1887. Inoculation, as well as slaughter, is practised in France, and M. Tisserand believes the former preventive to have had a good effect; but the statistics he puts forward in support of his opinion really show that it cannot be relied upon, as the number of animals which have had to be slaughtered after having been inoculated is considerable in all the cases mentioned. Foot-and-mouth disease existed in twenty-seven departments in 1887, but was less prevalent than usual.—*Standard.*

"THE MANUFACTURE OF HYDROPHOBIA."

To the Editor of the Echo.

SIR,—May I again trespass upon your space to record an additional death from induced rabies, certified by Professor Peter, perhaps the highest medical authority in Paris? Possibly his decision may convince some of your readers that there is real danger of becoming rabid, or hydrophobic, by submitting to Pasteur's so-called prophylaxis. In this case the horse may have died of canine rabies, but it is unquestionable the man died of Pasteur's inoculation.—Yours, &c.,

Oct. 14. HERBERT J REID, Secretary.

Februaay 28, 1889.—Two men and a horse bitten by a "suspected" rabid dog. The first man was bitten on the right leg, through two pairs of trousers receiving a wound which healed within a fortnight. The second, a postman, named Rascol, was also bitten on the right leg, through two pairs of trousers, the outer pair only being torn, but the animal's

teeth had scratched the skin, through which afterwards oozed a few drops of blood.

The horse died April 11th without being attended by a veterinary, but exhibiting symptoms, which were taken for rabies; the dog was certified. "Suspected of rabies."

The man first bitten has received no treatment whatever, and is alive and well.

Rascol was inoculated by Pasteur from 9th to 23rd March, returning to work on the 26th, which he continued until April 11th, when, on entering the village of Montaigut, chilled and weary, he met the dead body of the horse, bitten the same day as himself, being carried away. From this moment he became morose, depressed, and lost his appetite. Dr. Rascol was summoned on April 12th, and the day following Dr. Vergees. The patient experienced general feebleness, difficulty in moving his limbs, loss of muscular power, headache, and nondescript pains, principally in the places where the preventive inoculation had been performed. Then total loss of power in both legs, difficulty in swallowing, etc. April 14th the patient died from asphyxia.

The full particulars of this case having been submitted to Professor Peter, of Paris, he states:—"This is evidently a case of rabies. . . . but modified. Paralytic phenomena have replaced the convulsions, and intelligence was retained to the last. This is precisely what I observed with the unfortunate Reveillac, with the child at Dunkerk, and with the Néo of Arras. In Rascol's case, as in those I have just mentioned, the premonitory pains were felt where the inoculation was performed. The patient, I have no hesitation in saying, died of experimental rabies." (Rage du laboratoire.) Compare this with the case of Helene W———, bitten through her garments and inoculated, while her companions, who received no treatment, are still alive and well.*

* This refers to a similar fatality published last week, the inoculated person, bitten through two garments, dying; the uninoculated, bitten on the naked limb, surviving.

GOVERNMENT VETY. DEPARTMENT.

CONTAGIOUS DISEASES IN ANIMALS.

Reported in Great Britain and Ireland during the week ended October 12th, 1889.

Pleuro-pneumonia.—In Great Britain 15 fresh outbreaks of this disease were reported, 6 of them in England, in the counties of Lancaster, Leicester, Norfolk, and York (W.R.). The nine outbreaks in Scotland took place in the counties of Edinburgh, Fife, Forfar, Lanark, Perth, and Renfrew. The number of cattle attacked was 33, of which 10 were in England and 23 in Scotland. In addition to these diseased, 83 healthy ones which had been exposed to infection were slaughtered. In Ireland 2 fresh outbreaks of pleuro-pneumonia were reported, both in the North Dublin Union, 2 animals were attacked and 18 healthy exposed to infection were slaughtered.

Anthrax.—There were 5 fresh outbreaks of this disease reported in Great Britain, 3 in England, in the counties of Cumberland, Surrey, and York (W.R.); the 2 in Scotland occurred in the counties of Fife and Roxburgh: 6 animals were attacked, and of these, and 3 which remained alive from the previous week, 6 died and 3 recovered. No case of anthrax occurred in Ireland during the week.

Swine-Fever.—In Great Britain 84 fresh outbreaks of swine-fever were reported, 81 of them in England, 2 in Wales, and 1 in Scotland. The number of pigs attacked was 529, of the diseased swine 197 were killed, 167 died, 59 recovered, and 478 remained alive at the end of the week. In Ireland 6 fresh outbreaks were reported and 37 pigs attacked.

Glanders and Farcy.—Of glanders 11 fresh outbreaks were reported, 10 in London and 1 in Edinburgh, 25 horses were affected, 21 of which were in London, 1 in Middlesex, 1 in Edinburgh, and 2 in Lanark. There were 14 fresh outbreaks of farcy reported, 13 in London and 1 in Edinburgh, 23 horses were affected, of which 22 were in London. No cases of either glanders or farcy were reported in Ireland during the week.

Rabies.—In England 8 cases of this disease were reported in the counties of Essex, Lancaster, Middlesex, Oxford, Surrey, Sussex (East), and York (W.R.). In Ireland there were 10 cases of rabies, 5 in dogs, 4 in cattle, and 1 in a pig.

NOTES AND NEWS.

Hot Shoe Fitting.

A correspondent sends us the following extract from a letter which appeared in *The Live Stock Journal* above the signature of "Woodroffe Hill, M.R.C.V.S." Surely someone has been taking a liberty with the learned Professor's name.

"It has been urged that it is imperative to fit a shoe properly, the level and necessary bearings can only be obtained by the heated shoe, *ergo*, the frizzling of the horn to encourage the lazy attributes of the shoeing smith. I have little hesitation after years of forge experience in asserting that more abnormal conditions of equine feet arise from hot fitting than probably any other cause. What is the structure of horn? Has it vitality, or does it exist through vital encouragement? Would human beings frizzle the tips of their nails? Where does the chief bearing of the shoe lie? On the crust, which cannot be too firm and sound. Is its lower part that has to meet the resistance of iron strengthened or deadened by the application of red-hot iron? Seedy toes, rimmed hoofs and shelly feet, &c., owe more to their condition through hot shoe fitting than is suspected. Better work a horse unshod than badly shod. Better a horse with a natural foot, however ugly, than a foot frizzled and cut to shape by an unscientific and misnamed artistic smith.

"Roaring" in the Army.

The complications arising from a conflict of medical opinions are proverbial. Recent occurrences,

however, tend to show that when veterinary and lay opinions come into direct opposition, the balance weighs in favour of the *in*expert—in the Army at least. In publishing the last annual report by the Principal Veterinary Surgeon, we noted certain figures and assertions advanced therein in support of the advantages of a specific curative treatment of the disease know as "roaring." No inconsiderable number of cases were treated in England and Ireland during the past year, and a considerable measure of success was claimed—on paper. It now appears that outside the cloth, or so much of it as encases a few enthusiasts, there is no marked feeling of confidence in the application of trachæotomy to the disease of roaring. We understand that "roarers" will in future be brought forward for casting, and will not, in the Service at least, be subjected to the torture of a very painful operation with a view to the removal of the impediment of breathing which in aggravated cases renders them unfit for service.—*Broad Arrow.*

CORRESPONDENCE.

Communications for the Editor to be addressed 20 Fulham Road, S.W.

Original articles and reports should be written on one side only of the paper, and authenticated by the names and addresses of the writers, not necessarily for publication.

THE TEACHING OF THE PRACTICAL WORK AT THE R.V.C.

SIR,

Glancing over the number of marks obtained by the students at the late examination for the Fitzwygram prizes, I see, and I hope the Principal of the London College also sees, with regret the deplorable state of affairs which must exist when two of its best men can only score 450 out of a total of 1,500 I think, in the practical part. It shows that there is a screw loose somewhere in the teaching at the R.V.C. It is not my place to dictate to the Principal or those in authority as to where the said screw is loose, and what sort of a wrench to use to tighten it, but I can say this, and so can anyone else say who chooses to look over the list of Professors at the R.V.C., that their number as practical men only amounts to a solitary one, whom I need not mention afraid of offending the theoretical ones.

Last session there was no such thing as "going around with the Professors." One went his rounds at 7 a.m., another when it suited him and his private class. whilst the third had so many things to attend to that he had to go whenever he had a few spare moments, now and again, and perhaps he would not see the last of them till near upon 5.30 or 6 p.m. There was no specified time, and students could not afford the time to hang around the green waiting for one of the Professors to appear with his visiting book. The cards in the boxes afforded the independent student no information.

Cheap practice does not do enough to teach the practical work. Only on a Saturday at Cheap Practice last session would you be shown how to fire a horse scientifically and neatly, and other minor operations.

In conclusion, I must say I am not much of an author, but I hope the Fitzwygram results will induce the authorities of the R.V.C. to do something for their students in the practical part of their profession.

Yours, "A YOUNG MEMBER."

"Veterinary Student" is referred to notice at head of this column. We shall be pleased to insert his communication.

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Hon. Sec: Mr. W. Penhale, F.R.C.V.S., Barnstaple, Devon.

WEST OF SCOTLAND V.M.A.
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37 West Burn-street, Greenock, N.B.
Hon. Sec: Mr. James Weir.

YORKSHIRE V.M.A.
Pres: Mr. W. Lodge, M.R.C.V.S., Dewsbury.
Hon. Sec: Mr. W. F. Greenhalgh, M.R.C.V.S., Hunslet, Leeds.